

Questions from the Public Exhibition period Oct – Dec 2005

TECHNICAL QUESTIONS:

Q1. What will the facilities water requirements be and where will the water be drawn from?

A. It is expected that the precinct plant would require approximately 4,000 litres of potable water per day. Water used for washing down equipment could come from recycled treated water produced onsite. Where the potable water will come from would depend on the final site selection and discussions with WaterCorp, however it is likely to be provided from the local scheme water system.

Q2. What was the basis for establishing the precincts potential size and treatment capacity?

A. The precinct's size and treatment capacity were estimated based on waste volumes reported to the Department of Environment under the Controlled Waste Regulations. The 3C Technical Advisor on Waste Management, along with existing waste treaters provided advice as to the likely areas needed for different types of technologies treating the estimated waste volumes.

Q3. What is the lifespan of the precinct?

A. The lifespan of the precinct is hard to predict, but it is likely to be closer to 20 years than 50 years. As industry modernises and adopts cleaner production techniques there is likely to be less waste generated in the longer term, and potentially a decreasing need for a treatment precinct.

Q4. How much will a precinct cost to establish and where will the money come from?

A. The Government is undertaking work to determine the cost of establishing the precinct itself. The cost will vary depending on the final locations and may need to include the provision of power, water and transport infrastructure of a suitable quality.

Construction and operation of treatment technologies within the precincts is expected to be financed by private enterprise and to cost millions of dollars.

Q5. Are the proposed waste treatment technologies available and being used in Australia currently?

A. Versions of the technologies that may be established for the precinct are already operating in Australia or overseas. Facilities that are established at the precinct, while based on existing technologies, will be newer and incorporate best practice.

One of the Essential Technology Suitability Criteria is that if a technology is new, or innovative, it must have been successfully demonstrated on a sufficiently large scale so that any risks associated with it have been well characterised. A Desirable Technology Suitability Criterion is that the technologies have been proven and are commercially viable.

Q6. Please provide a list of other facilities operating elsewhere in Australia and the world that use similar technologies to those that could go in the precinct.

A. The 3C has commissioned a report to identify examples of companies in Australia and internationally that are using best practice technologies that would meet the 3C's technology suitability criteria. This report is expected to be available in mid February 2006.

Q7. How many people would a treatment precinct employ?

A. It is expected that the precincts established in the Pilbara and Goldfields would employ about six to 12 people each, and that the South West precinct, due to its larger size, would employ about 12 to 20 people.

Q8. What emissions will come from the precinct, eg noise, smoke, vapour, steam etc?

The technological suitability criteria require that operators must eliminate or minimise emissions to air, land and water. Steam would be produced by a boiler onsite. There will be very few chimneys in a precinct, and all stack emissions would be filtered. Noise emissions will need to meet requirements of the Noise Regulations and are expected to be low.

Q9. How many chimneys would there be and what is to stop more going in?

A: State Cabinet endorsed the 3C's recommendation that there be no incineration of any wastes within a precinct.

It is currently envisaged that there may be a chimney stack attached to:

- A thermal desorption unit. In this process, solids and sludges contaminated with organic compounds (eg polycyclic aromatic hydrocarbons (PAHs), pesticides, chlorinated hydrocarbons) are indirectly heated in the thermal desorber to volatilise the contaminants that are then condensed in another sealed part of the desorber. The vapours are cooled to about 5⁰C to ensure essentially all of the organics (VOCs) are condensed and then passed through a polishing activated carbon filter before discharge. Condensate would be treated by another treatment process. Emissions would include non-condensable gases such as oxygen, carbon dioxide and nitrogen, discharged via a stack.
- A small stack for discharge of flue gasses from a steam boiler in a services building.

Q10. How will the evaporation ponds be constructed and lined?

A. This may vary slightly from site to site depending on the type of soil and groundwater level at each specific location, but best practice is to design ponds with a double liner system, and leak detection equipment beneath the liners. Monitoring bores will also be established that will detect contamination of groundwater if leak detection systems fail. This issue is dealt with in more detail in 3C Technical Paper E, *Draft Proposed Discharge Criteria and Management/Monitoring Issues for Evaporation Ponds* (2004) which is available on the 3C website, http://www.3c.org.au/resource_library.php?cat=14&sc=17

Q11. Will the 3km buffer zone protect primary producers and their produce from possible effects and emissions from the waste treatment facility?

A. The technology suitability criteria require that emissions are eliminated or minimised to ensure the protection of the community and the environment, including farming practices. It is these criteria, rather than the 3km public acceptability buffer, that are designed to protect all land uses, including agriculture from possible effects and emissions.

The 3km public acceptability buffer was negotiated between stakeholders to provide an adequate level of comfort to the community and is not related to the level of risk that may associated with the establishment and operation of the precinct.

Q12. How will ground water be protected?

A. Ground water will be protected from contamination by the design and construction of bunded tanks, evaporation ponds with liners, leak detection systems, storm water management, monitoring bores and best practice operation.

Best practice is to design ponds with a double liner system and leak detection equipment beneath them. Any tanks on site would need to be constructed according to the requirements of the Dangerous Goods Regulations, which include impermeable bunds to capture and hold leaks. Stormwater runoff would need to be managed to ensure that contaminated stormwater does not leave the premises. Further to this Essential Site Selection Criteria 5 states that the hydraulic conductivity of any soil (natural or engineered) above the ground water level shall ensure that it takes more than two years for any contaminants to reach the ground water level. In this time the leak should be fixed and any contamination re-mediated.

Q13. What is the definition of hazardous waste?

A. The 3C are currently finalising the detailed definition of hazardous waste. We have adopted the European Union definition and classification of hazardous waste; namely waste that poses a threat to human health, safety or the environment by possessing one or more of the following characteristics:

- explosive
- harmful
- toxic
- toxic to reproduction
- flammable
- oxidising
- corrosive
- mutagenic
- highly flammable
- irritating
- carcinogenic
- infectious
- ecotoxic
- substances or preparations which release toxic, or very toxic, gas on contact with water, air or acid, or are
- substances or preparations capable, by any means, after disposal, of yielding another substance, such as leachate, which has any of the characteristics listed above.

For further details please refer to 3C Briefing Paper 6 *Which Wastes are Likely to be Treated in Precincts and Which Ones are Hazardous?* which is available on the 3C website at www.3c.org.au.

Q14. What is the size of the buffer zone and what is it designed to protect?

A. The essential buffer zone around the precinct is 3km. It is a zone which would separate sensitive land uses from the precinct.

The 3C has called the buffer zone a “public acceptability buffer zone”. It is a negotiated distance that emerged from consultation with stakeholders to provide an adequate level of comfort to the community and it is not related to the level of risk that may associated with the establishment and operation of the precinct.

During the consultation about the site selection criteria some stakeholders said 100m would be a sufficient buffer zone while others said 50 – 100km was not large enough. A 3km buffer is

conservative. If a precinct buffer size were set by the normal statutory processes, based on risk assessments, a buffer of 500 – 1000m would be more likely. If risk assessments were applied to facilities operating to the stringent Technology Suitability Criteria, a calculated buffer size of 500m or less would be the likely result.

Sensitive land uses include areas zoned residential, hotels, motels and hostels, caravan parks, hospitals and nursing homes, schools and other educational establishments, shopping centres, some public buildings and indigenous communities. Other activities may continue within the buffer zone such as other industrial and commercial land uses, including agriculture.

Q15. Will there be only one operator in a precinct, or will a precinct cater for a number of small operations?

A. A number of operators may be based in the South-West precinct, but the Goldfields and Pilbara treatment precincts may only have a single operator, depending on waste types and volumes generated. The number and types of operations will be influenced by commercial considerations, however it is the 3C's intention that any number of operators could establish at the precinct if commercial considerations allowed.

Q16. How long will waste stay at the precinct prior to treatment?

A. This will be determined by the type and quantity of waste generated in the region. Small volume waste types may be stored longer than large volume waste types. The precincts should not be storage facilities and the 3C has recognised that this needs to be addressed. Note 2 in the Waste Decision Tree, in Briefing Paper 6, addresses this issue. It is available on the 3C website at http://www.3c.org.au/resource_library.php?cat=19&sc=42.

The 3C will recommend that matters related to storage are included in the license conditions stipulated by the Department of Environment. We are currently preparing a detailed position on best practice operations within the precinct with the assistance of our Technical Advisory Panel.

Once a precinct is established the community can have input into this issue via the licensing process, which requires public consultation, and via the Precinct Stakeholder Groups, which the 3C will recommend be formed, and will have a precinct monitoring role.

Q17. Will nuclear waste be treated at the precinct, now or in the future?

A. No, nuclear waste will not be treated, or stored, in the precinct. All radioactive waste generated in Western Australia is managed by regulations under the auspices of the Department of Health and is generally disposed of in the Mt Walton Class 5 landfill, and this will continue.

Q18. What security will there be at the facility?

A. The facility would have security fencing and possibly security patrols. The site would have to comply with the security requirements needed for a Dangerous Goods Facility.

Q19. How 'updateable' will the precinct be so that it can stay current with best practice technologies?

A. Operators will adopt new technologies as it is commercially feasible to do so, or as the waste stream changes and as new or better technology is required. The technology suitability criteria require that emissions are eliminated or minimised for the life of the facility.

Q20. Has the potential of extreme weather events, eg storms and cyclones, been taken into account when designing the size and storage capacity of the evaporation ponds?

A. Yes, the potential for extreme weather events has been taken into account in relation to the size and capacity of evaporation ponds. Ample room has been provided within the precinct site to build ponds large enough to cope with extreme weather events. The final sizes and design of the ponds will depend on which sites in the Pilbara, Goldfields and South-West region are selected. An engineering study will be conducted to determine the required size.

Q21. What is temperature inversion?

A. Normally, the temperature of the air is warmer closest to the earth and gets colder with height above the earth. A temperature inversion occurs when this normal trend is inverted and a layer of cold air near the earth's surface is trapped beneath a layer of warmer air. This most often occurs on a cold winter's night/morning. If this layer of cold air is polluted with, say wood or coal smoke, it can not escape or dissipate effectively until the temperature gradient is restored. Serious pollution can sometimes occur during temperature inversions – eg the great London smog of 1952.

Q22. Have artificial reed beds and wetlands been considered as wastewater treatment options?

A. Artificial reed bed systems have not been considered because they are used to treat and remove contaminants from water. It is the intention that the treatment processes in the precinct will remove wastes or contaminants from liquid waste that comes to the precinct. The left over water can then be evaporated from the ponds.

PROCESS QUESTIONS:

Q1. Who owns land the precinct is on, and the precinct buffer zones?

A. The precinct will be owned by the State Government and then leased to private waste treaters. The ownership of land that is covered by the buffer zone would not change, however the future management of land in the essential buffer zone would need to ensure that sensitive uses are not established within it.

Q2. What happens to the industries currently treating waste when the precinct begins to operate?

A. The 3C has strongly recommended to State Cabinet that once hazardous/industrial waste precincts are established in WA, that hazardous wastes would have to be treated in precincts if the wastes were treated in WA. The mechanisms and timing by which this would be achieved are matters for Government decision. However, these will be important considerations in the development of a precinct regulatory and management model in 2006.

Q3. Does economics play a part in the final site recommendations?

A. While economic factors are not mentioned explicitly in the site selection criteria, they have clearly played some part in their development, as we can see in the criteria relating to such things as distance to major roads and sources of waste generation. If operation of facilities in a precinct cannot offer a reasonable possibility of an economic return, waste treatment firms will not bid to establish facilities in precincts and a situation similar the current situation would be likely to continue.

Q4. What incentives will there be for waste treaters to establish their businesses in the precincts?

A. Government is developing a precinct regulatory model that is likely to include a mixture of incentives (carrots) and regulations (sticks) that will be used to establish hazardous waste treatment precincts. The draft regulatory model will be subjected to broader public consultation in 2006.

Further information on this is available in 3C Briefing Paper 8: Management of Hazardous/ Industrial Waste Treatment Precincts available on the 3C website.
(http://www.3c.org.au/resource_library.php?cat=19&sc=42)

Q5. Has the 3C had discussions with Landcorp and the DOIR about the precinct?

A. The 3C has interacted with these Agencies both through the Hazardous/Industrial Waste Precinct Coordinating Group and occasionally directly on specific questions. However, these discussions notwithstanding, it should be noted that it is the Governments responsibility to establish precincts, not the 3C's. The 3C's role is to conduct a stakeholder involvement program to provide the Government with the best advice it can as a basis for establishing precincts.

Q6. Are members of the Representative Community Groups (RCGs) protected from litigation?

A. RCG's do not have any formal contractual arrangement with other parties, so there is no obvious mechanism by which membership of a RCG should increase or reduce anyone's exposure to risk of litigation.

Q7. How long is the consultation process and when will it finish?

A. The 3C consultation process on the publicly exhibited sites was originally planned to run for three and a half months. It began on the 31st of October 2005 and was planned to end on the 17th February 2006. Following advice and recommendations from stakeholders the public consultation period has recently been extended by one month to Friday the 17th of March 2006.

The 3C's overall stakeholder involvement program began in late 2003 and is scheduled to run for approximately three years, Since its commencement in 2003 there have been a broad range of consultative activities including two public forums to workshop draft technology suitability and site selection criteria, a call for submissions on both sets of criteria, a call for nominations of suitable sites and the current public exhibition of potential sites. More information on the consultation process can be found at www.3c.org.au

There will be additional consultation processes following the selection of precincts.

Q8. Where does 3C funding come from?

A. The 3C initial funding allocation came from the Waste Management Board. As the program has expanded in scale and time further funds have been provided by the State Government.

Q9. Is the RCG going to be an incorporated group?

A. It could be an incorporated group, but there is no need for it to be. Information about Representative Community Groups is available in 3C Briefing Paper 9, available from http://www.3c.org.au/resource_library.php?cat=19&sc=42

Q10. Can the RCG select a consultant independently or must it choose from the list provided by the 3C?

A. Yes, the RCG can select a consultant independently. The list provided by the 3C was a guide to assist RCG's, but was not intended to be a definitive list. However any consultant chosen by an RCG would have to be approved by the 3C to ensure that the consultant was appropriately qualified and experienced.

Q11. What is the definition of a sensitive land use?

A. Sensitive land uses include areas zoned residential, hotels, motels and hostels, caravan parks, hospitals and nursing homes, schools and other educational establishments, shopping centres, some public buildings and indigenous communities.

Q12. Will the 3C recommendations to Cabinet be made public, and if so when?

A. The 3C's recommendations to Cabinet, Cabinet's decision on the precinct sites and its decision on the form of the precinct model (which are scheduled to be made concurrently) will be posted on the 3C website and publicised by press release and newsletter.

A significant feature of the 3C's Stakeholder involvement Program is that all of the 3C's recommendations to Cabinet, and the Cabinet response to them, are made publicly available after Cabinet has decided its response.

Q13. Who owns the consultants report to the RCG, and can it be used to lobby politicians and Cabinet?

A. The Department of Environment would own the report, because it is managing the funding from the Waste Management Board, but the reports will be on the public record. They will be provided to local libraries in the areas around the potential precinct sites, and will be posted on the 3C website. All stakeholders will be able to use the reports in their submissions, or for lobbying purposes if they wish.

Q14. What date does the consultant have to get their report back to the RCG and 3C?

A. The consultants have to finish their reports and provide them to the 3C and RCG at least two weeks prior to the end of the public exhibition period. The 3C are recommending that the reports be completed by Friday the 17th of February 2006. This is to allow other stakeholders time to access and read the reports for inclusion in their own submissions should they wish.

Q15. What happens if all sites in an area, eg the South West, are found to be unsuitable, does the 3C just pick one any way?

A. No site will be chosen if it fails any of the essential site selection criteria. The 3C does not believe this will occur, but if it did it would necessitate a major extension of the timeline and 3C would need to consult with Government on a way, if any, forward.

Q16. How will the buffer zones be protected so they aren't whittled away or encroached on by residential expansion?

A. It is intended that the buffer zones will be protected through legislation. The Government is currently developing drafting instructions for such legislation.

Q17: Who drew up the site selection criteria?

A: The 3C drafted the initial set of draft criteria, these then went to a public workshop, which resulted in redrafting, then out for public comment for one month. The criteria were then amended in response to the 60+ submissions that were received before going to Cabinet.

PRECINCT FUTURE MANAGEMENT QUESTIONS:

Q1. What control measures will be in place to ensure hazardous waste goes to a precinct for treatment?

A. The Department of Environment introduced the Controlled Waste Tracking System in 2004. This system requires generators of hazardous waste to account for the waste they generate and provide details of where it is treated and which company transports the waste to the treatment facility. All drivers and vehicles used to transport controlled waste must be certified. Waste treaters must provide details of the types and quantities of waste they treat. This system allows Government regulators to track the waste and receive evidence it is treated properly.

Q2. Who will regulate the precinct and how can the community be involved with this?

A. The primary responsibility for regulation of precincts will reside with the Department of Environment. The 3C has prepared a discussion paper on community input into the management of precincts through Community Monitoring Committees. We invite comments on this paper, which is available from www.3c.org.au. The 3C will consolidate all comments received on this discussion paper as advice to the State Government for consideration in developing the precinct management and regulatory model.

Q3: How long before any new regulations would come into effect?

A: 1-3 years.

Q4. What strategies are there to deal with major spills or incidents on transport routes or outside bunded areas at the precinct?

A. The existing suite of procedures flowing from the Australian Code for the Transport of Dangerous Goods by Road and Rail, associated dangerous goods regulations and emergency response procedures would apply.

Much greater, and usually more concentrated, volumes of hazardous materials are transported throughout WA as products, including fuel and agricultural chemicals, than the volumes that would be associated with waste precincts.

Q5. Will the precinct expand over time?

A. The size of land earmarked for the precincts, 7.5 hectares in the Pilbara and Goldfields and 20 hectares in the South-West already allows for future expansion if necessary.

The potential for expansion will largely depend on the type and size of the future manufacturing base in WA. While the adoption of new technology and cleaner production by industry may result in less volume, and less hazardous wastes, an increase in the manufacturing base may result in more volume or a wider range of wastes being produced.

Q6. Will emergency services in the precinct locations be improved and expanded?

A. FESA would evaluate the sites local emergency services and determine the resources necessary. The 3C will recommend to Cabinet that adequate resources be provided in the regions where precincts are located.

Q7. Will there be ongoing monitoring of the site and who will be responsible for it?

A. There will be ongoing monitoring at the precinct. The regulation of the site will be the responsibility of the Department of Environment. Monitoring will be the responsibility of the operator, as required by license conditions.

In recognition that local stakeholders may also wish to have input into the operation of the precincts the 3C has proposed that a stakeholder precinct monitoring committee be established for each separate precinct to maximise local stakeholder knowledge about and input into the monitoring of the precincts operations. More details about the proposed regulating and monitoring of the precinct can be found in 3C Briefing Paper 8 and the 3C Discussion Paper, *Opportunities for Communities to have a Greater Role in the Ongoing Monitoring of Hazardous/Industrial Waste Treatment Precincts*. These are available at: http://www.3c.org.au/resource_library.php?cat=19&sc=42

Q8. What role will local government have in the running and management of the precinct?

A. The 3C will recommend that local government be involved in precinct monitoring committee, but it is envisaged that the local government would not have a direct hand in managing or running the precincts.

Q9. Will incentives and phase in periods be used to assist waste treatment companies to relocate to the precinct?

A. Probably, and the exact form in which it may occur is a matter for Government to decide following consultation. It is likely to be difficult to devise an equitable process for both existing operators and potential new entrants to hazardous waste treatment in WA during the establishment of operations within the precincts.

Q10. What will happen, and who is responsible in the event of a fire in, or near, the precinct? For example a bush or paddock fire blowing towards the precinct?

A. If a fire occurred in the precinct, or an external fire was threatening the precinct, the most likely response would be for precinct staff to fight it with onsite emergency equipment, were it safe to do so, but local emergency services would be called to attend the situation in any event.

Q11. Government regulation has failed in the past, what confidence can the community have that this won't occur at the precinct?

A. The 3C is aware that many people lack faith in the EPA and DoE being able to regulate industry effectively. The 3C has proposed that a precinct monitoring committee be established for each separate precinct to maximise local stakeholder knowledge about and input into the monitoring of the precincts operations. More details about the proposed regulating and monitoring of the precinct can be found in 3C Briefing Paper 8 and the 3C Discussion Paper, *Opportunities for Communities to have a Greater Role in the Ongoing Monitoring of Hazardous/Industrial Waste Treatment Precincts* available at: http://www.3c.org.au/resource_library.php?cat=19&sc=42

Q12: Was it considered that private farmland be purchased?.

A: The 3C process was to consider all sites that were nominated to it. Private farmland was nominated (including the exhibited site near Bencubbin) and the 3C considered these sites on their merits against the site selection criteria. If, following stakeholder input during the public exhibition phase, privately owned land is identified as a suitable precinct location the 3C will recommend the land be purchased by government..

WASTE STREAM QUESTIONS:

Q1. Where does the waste come from and what is it?

A. The waste is generated in industries, commercial premises, Government operations and households, both large and small, across Western Australia. It consists of substances such as oils, hydraulic fluids, acids, solvents, batteries, pool chemicals, paints etc.

3C Briefing Paper 6 has more detail about the types of waste that will be treated (available at: http://www.3c.org.au/resource_library.php?cat=19&sc=42). No radioactive or nuclear waste will be treated at the precinct.

Q2. Will waste transfer stations be established?

A. The issue has not been considered specifically by the 3C however, if long distance transport is involved it is likely that a facility where wastes can be bulked up prior to transport will be necessary.

Q3. Will the precinct deal with computer, TV, mobile phone etc waste?

A. Recycling of these, or other materials, could occur in the precinct, but they could also occur elsewhere.

Q4. What would happen to residues of the treatment process, and where would they go?

A. Any residues from treatment would have to go to a facility, outside the precinct, that was licensed to accept them for disposal. This may include a licensed landfill or transport to another State for further treatment or destruction. Residues from treatment processes will not be disposed of within the precinct.

Q5. What is the demand for waste treatment and what is the split of quantities and types needing treatment?

A. Estimates of the types and volumes of waste requiring treatment are provided in 3C Briefing Paper 6 (available at: http://www.3c.org.au/resource_library.php?cat=19&sc=42).

Q6. Will asbestos go to the precinct for treatment?

A. No, asbestos will not be treated at the precinct. Asbestos cannot be recycled, or treated to make it safe. The only legal disposal option for asbestos is to send it to an appropriately licensed landfill.

Q7. How many truck movements would there be to the site per day and what size and type of truck would they be?

A. 3C Briefing Paper 6 estimates approximately 25 truck movements per day to the precinct in the South-West region. This figure was based on the use of 20 tonne trucks. The data used to calculate

this figure has been checked and the estimate is accurate. However, based on recent information on current transport methods from the waste treatment industry, if semi-trailers (truck and trailer of 40 tonnes) were used to transport waste to a precinct the estimate would be approximately 10 truck deliveries per weekday.

Q8. Who owns, regulates and maintains the trucks used to transport waste?

A. The trucks transporting waste to the precinct would be owned and operated by private transport or waste treatment companies. Drivers and vehicles would have to be registered to transport hazardous waste under the Controlled Waste Regulations and would be regulated by the Department of Environment. Like all vehicles on the roads of WA they also have to be roadworthy and in the case of trucks, conform to scheduled maintenance regulations and drivers must conform to logbook requirements.

Q9. Who is currently treating hazardous waste in WA and where are they operating?

- Total Waste Management, in Kalgoorlie
- Tox Free Solutions, in Port Hedland
- Tox Free Solution, in Kwinana
- Wren Oil, in the Bunbury area
- Total Waste Management in Welshpool
- The Stephenson-Ward incinerator in Welshpool

Q11. Will companies operating in the precincts be seeking waste from all over Australia?

A. There are no restrictions on licensed treatment facilities accepting hazardous waste for treatment from anywhere in Australia. Transport of waste across State borders must conform to the provisions of the Controlled Waste National Environmental Protection Measure. That said, the establishment of hazardous/industrial waste treatment precincts in the Pilbara, Goldfields and South-West region should lead to significant reduction in the interstate and inter-regional transport of Western Australian generated waste. With the exception of Tox Free Solutions in Kwinana, which only treats a small fraction of the waste stream, there is currently a lack of hazardous/industrial waste treatment facilities in the South-West region. This is leading to wastes being transported from the South-West region to the Goldfields, Pilbara and Eastern States for treatment or destruction.

SITE SPECIFIC QUESTIONS:

Avon

Q1. Has seismic activity in the Avon area been adequately investigated?

A. The 3C has sought the advice of Geoscience Australia. Australian Geological Survey Organisation seismic hazard maps were used to assess the seismic activity of each exhibited site. The 3C determined that areas of high or very high seismic hazard, as defined by the Global Seismic Hazard Assessment Program (GSHAP), should be avoided. A desktop review to assess the site's geological stability using publicly available, and restricted reports, was conducted by the 3C's environmental Technical Advisory Panel member. The Department of Environment also commented on geological stability. The Avon Industrial Park was considered to meet the criterion for geological stability.

Q2. Was the availability of professional fire fighters part of the essential criteria for siting and if so did the AIP meet this criterion?

A. An Essential Siting Criterion is that a site be within approximately 25 minutes of adequate off-site emergency services, including medical and fire fighting facilities. As advised by FESA, this should take into account the distance to either a career fire station (ideally 25km or less) or a volunteer fire station (ideally 20km or less) and will require an assessment of the capability of the fire fighting service to provide a range of fire suppression and hazmat services. The site in the Avon Industrial Park was considered to meet this criterion.

Q3. Can the 3C confirm the size of the Avon Industrial Park (AIP)? The 3C paper indicates it is 639ha, whereas, other sources indicate 473 ha.

A. The AIP is in fact 473 hectares, of which 203 hectares is zoned special industrial and 270 is public open space. There are no designated buffer zones within the AIP.

Bencubbin

Q1. Will local crops be affected by the precinct, for example in the result of a fire or accident at the site?

A. The precinct will operate to very stringent criteria designed to eliminate or minimise emissions. That said, accidents, no matter how remote the likelihood, are always a possibility. We believe that the risk of crop contamination is very low.

Q2. Will the precinct workforce be based in Bencubbin?

A. This is beyond the scope and control of the 3C. In a democratic society workers cannot be required to live in a particular location. However, all other things being equal people prefer to live relatively close to their work. In addition, job opportunities will be created for the local population and additions to the workforce in local areas will create additional local economic activity.

Bruce Rock

Q1. What transport route would be used to bring waste to the precinct?

A. This matter would have to be discussed with Main Roads if the MSW039 site located north of Bruce Rock were chosen as the preferred site for a hazardous/industrial waste treatment precinct for the South-West region. However it is reasonable to assume that carriers would prefer to use the most direct route that included roads of a suitable standard.

Q2. Why must Bruce Rock, a rural area, treat the metro areas waste?

A. The very stringent site selection criteria meant that no metropolitan sites were found that met the public acceptability buffer from sensitive land uses. All four of the potential South West sites are located outside of the metropolitan area.

Q3. Will the Shire and local businesses be able to tender for parts of the precincts construction?

A. The 3C will not be managing the tender process but would anticipate that any competent local entity could bid for tendered works.

Q4. Could the Shires Landcare officer be the consultant employed by the RCG?

A. No, the Landcare officer from the Shire of Bruce Rock cannot act as the consultant employed by the RCG. The aim of the RCG funding is to employ an independent expert to assist communities to critique the 3C's site selection processes.

Q5. How will the precinct get around land clearing regulations, given the proposed site is remnant vegetation?

A. The establishment of the precinct must conform to all relevant regulations, including those relating to land clearing.

Q6. What will the precincts effect be on agriculture, particularly Quality Assurance?

A. The 3C do not believe there will be any impact on Quality Assurance, but will seriously consider any contrary evidence.

Q7. Will the precinct workforce be based in Bruce Rock?

A. This is beyond the scope and control of the 3C. In a democratic society workers cannot be required to live in a particular location. However, all other things being equal people prefer to live relatively close to their work. In addition, job opportunities will be created for the local population and additions to the workforce in local areas will create additional local economic activity.

Q8. There is a rare flora species, *Acacia lirellata* subspecies *compressa*, which occurs in the proposed site.

A. Thank you for the information. The matter is under investigation. The Narrogin and Merredin DCLM offices advise that the plant is listed as priority 2 rare flora, so it is not technically listed as threatened. They have a record of a small population of the plant growing 4.8km north of Bruce Rock on the road to Merredin, but do not have a record of it occurring in the site MSW039. If the MSW039 site near Bruce Rock were selected as the site for the South-West region a full flora and fauna study would be conducted as part of an EIA.

Kemerton

Q1. What roads will be used to transport waste to and access the precinct?

A. This matter would have to be discussed with Main Roads, if and when, the site within the Kemerton Industrial Park were chosen as the preferred site for a hazardous/industrial waste treatment precinct for the South-West region.

Q2. Will the buffer zone extend beyond the existing Kemerton Industrial Park boundary and encroach on other land uses, such as semi-rural subdivisions?

A. If the Kemerton Industrial Park was selected the extent to which the buffer zone overlapped with other land uses would depend on the location of the precinct within the Park.

Land that is overlapped by the buffer zone would not be able to be used for a sensitive land use in the future. Other activities could continue within the buffer zone including other industrial land uses and agriculture, but the future function of land in the buffer zone may be restricted, for example it could not be subdivided and made into a residential estate.

Sensitive land uses include areas zoned residential, hotels, motels and hostels, caravan parks, hospitals and nursing homes, schools and other educational establishments, shopping centres, some public buildings and indigenous communities.

Q3. Has any work been done on an environmental impact assessment (EIA) or health impact assessment (HIA) for the Kemerton site?

A. An environmental and health assessment would be required as part of the statutory approval process in the event that the Kemerton site were selected. As yet no EIA or HIA has been done in relation to the proposed hazardous/industrial waste treatment precinct.

Q4. Will cremation of diseased/destroyed livestock occur at the precinct?

A. No incinerator will be at the precinct, so cremation of livestock will not occur in the precinct.

Q5. Local people drink and use the groundwater in the area, how will this be protected?

A. Ground water will be protected from contamination by the design and construction of infrastructure on the site, including:

- evaporation ponds with double liners and leak detection systems
- monitoring bores.
- tanks constructed according to the requirements of the Dangerous Goods Regulations, which include impermeable bunds to capture and hold leaks
- Site stormwater catchment designed to ensure that contaminated stormwater does not leave the premises.
- soil (natural or engineered) above the ground water level must ensure that it takes more than two years for any contaminants to reach the ground water level (as required by Essential Criterion 5). In this time the leak should be fixed and any contamination re-mediated.

Q6. Did 3C take into account the areas rapidly expanding population and forecast future residential growth?

A. If the Kemerton site was chosen, the Government would have to ensure through legislation that residential growth did not occur within the essential public acceptability buffer.

Kalgoorlie and Coolgardie

Q1. Will Sulphur Dioxide be emitted from the precinct?

A. As required by the technology suitability criteria all emissions will be eliminated or minimised. It is unlikely that Sulphur Dioxide will be emitted from the precinct.

Q2. Timing of flora surveys could have a big impact on what species are identified. Spring is the best time to map flora.

A. The flora and fauna surveys to be conducted once a precinct location has been decided on will occur at a later stage. They would be conducted as part of the formal environmental approvals process and would take the issue of the best time to conduct flora and fauna surveys into account.

Karratha

Q1. Would the main access road be via the proposed Tom Price – Karratha road?

A. Yes, but this would have to be discussed further with Main Roads, if Karratha site NW072/074/075 were chosen as the preferred site for a hazardous/industrial waste treatment precinct for the Pilbara region.

Q2. The evaporation ponds would be a magnet for wildlife and birds, what would be done about this so animals don't die.

A. The evaporation ponds could be isolated from fauna by a number of means including fencing, laser beams and nets. Water quality in the ponds could also be maintained at a level to protect fauna. 3C Technical Paper E, *Draft Proposed Discharge Criteria and Management/Monitoring Issues for Evaporation Ponds* (2004) provides guidance on the water quality that could be achieved in the evaporation ponds. This paper is available on the 3C website at, http://www.3c.org.au/resource_library.php?cat=14&sc=17

Port Hedland

Q1. Will the laboratory in the precinct be able to do testing for the broader Pilbara community? Currently samples need to be sent to Perth.

A. This is an issue that may be usefully investigated in the development of a Precinct Model for the Pilbara. It is an issue that the 3C will bring to Governments attention.

Q2. Does Karratha or Port Hedland produce more waste?

Based on information obtained from the Controlled Waste database, more waste is produced in the Shire of Roeburne than the shire of Port Hedland.

Q3. Have global warming, sea level rise and potential cyclone storm surge been taken into account when assessing the sites flooding potential?

A. Yes, cyclonic storm surges have been taken into account when assessing the flooding potential at the exhibited sites. An Essential Siting Criterion is that the sites be at least 500mm above the 100 year Average Recurrence Interval (ARI) for a floodplain.